TECHNOLOGY AND ENGINEERING EDUCATION COMPETENCY PROGRAM

Physics Core CRT Test (CTE Test # 961) – PERFORMANCE EVALUATION REQUIREMENTS

To qualify for the Principles of Technology Competency Certificate, students must successfully complete each section of activities listed below at 80% efficiency or better and score 68% or better on the written exam.

Student Name:_____

Period: _____

COMPETENCY ACTIVITIES

Scoring indicators: 3 = Student demonstrates competency in the prescribed task.
2 = Student demonstrates partial competency in the prescribed task.
1 = With assistance the student accomplishes prescribed task.

1- Appropriately measure, report and interpret data. (Related Skill for State Physics Core; all standards)

	3	2	1	<<<<<<< **Scoring Indicators**
a				Student successfully follows technical instruction.
b				Select and correctly use appropriate measurement tools to measure a physical property of matter.
c				Data is properly reported/recorded.
d				Student will appropriately create and label a graph of their data.
e				Correctly interpret graphical representation of data.
f				Select and correctly use appropriate mathematical expressions.
				18 points possible (14 Points meet the 80% standard)

2- Determine the electrical properties of matter by observing and measuring voltage and current, in series and parallel circuits. (Related Skill for State Physics Core; Standard 3)

	3	2	1	<<<<<<< **Scoring Indicators**
a				Connect voltmeter correctly into a circuit (parallel or series).
b				Connect amp meter correctly into a circuit (parallel or series).
c				Properly set range and function switches on the meter.
d				Correctly read the meter.
				12 points possible (10 Points meet the 80% standard)

3- Determine thermal properties of matter by measuring heating or cooling of matter over time. (Related Skill for State Physics Core; Standard 4)

	3	2	1	<<<<<<< **Scoring Indicators**
a				Correctly use temperature measuring devices.
b				Accurately record temperature data over time in a graph, table or chart.
				6 points possible (5 Points meet the 80% standard)

4- Measure and analyze objects in motion in linear or rotational systems. (Related Skill for State Physics Core; Standard 1)

	3	2	1	<<<<<<< **Scoring Indicators**
a				Accurately measure linear or angular distance.
b				Accurately measure time.
c				Use the appropriate math formula to calculate a speed or rate.
d				Express answer using appropriate units and numbers.
				12 points possible (10 Points meet the 80% standard)

5- Observe, analyze, and report characteristics of waves. (Related Skill for State Physics Core; Standard 5)

	3	2	1	<<<<<<< **Scoring Indicators**
a				From an oscilloscope or a simulation, determine wave amplitude.
b				From an oscilloscope or a simulation, determine wave frequency.
c				From an oscilloscope or a simulation, determine wave period.
				9 points possible (8 Points meet the 80% standard)

6- Measure, calculate, and report the energy and efficiency of an energy conversion device or system. (Related Skills for State Physics Core; Standard 4)

	3	2	1	<<<<<<< **Scoring Indicators**
a				Determine potential and kinetic energy.
b				Calculate work in and work out.
c				Calculate efficiency.
d				Explain energy loss.
				12 points possible (10 Points meet the 80% standard)

Teachers: This Worksheet is optional. It is strongly recommended that you track your students' performance.